

# Internet of Services

Universität Karlsruhe (TH)

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SYSTEMATIC THOUGHT LEADERSHIP FOR INNOVATIVE BUSINESS



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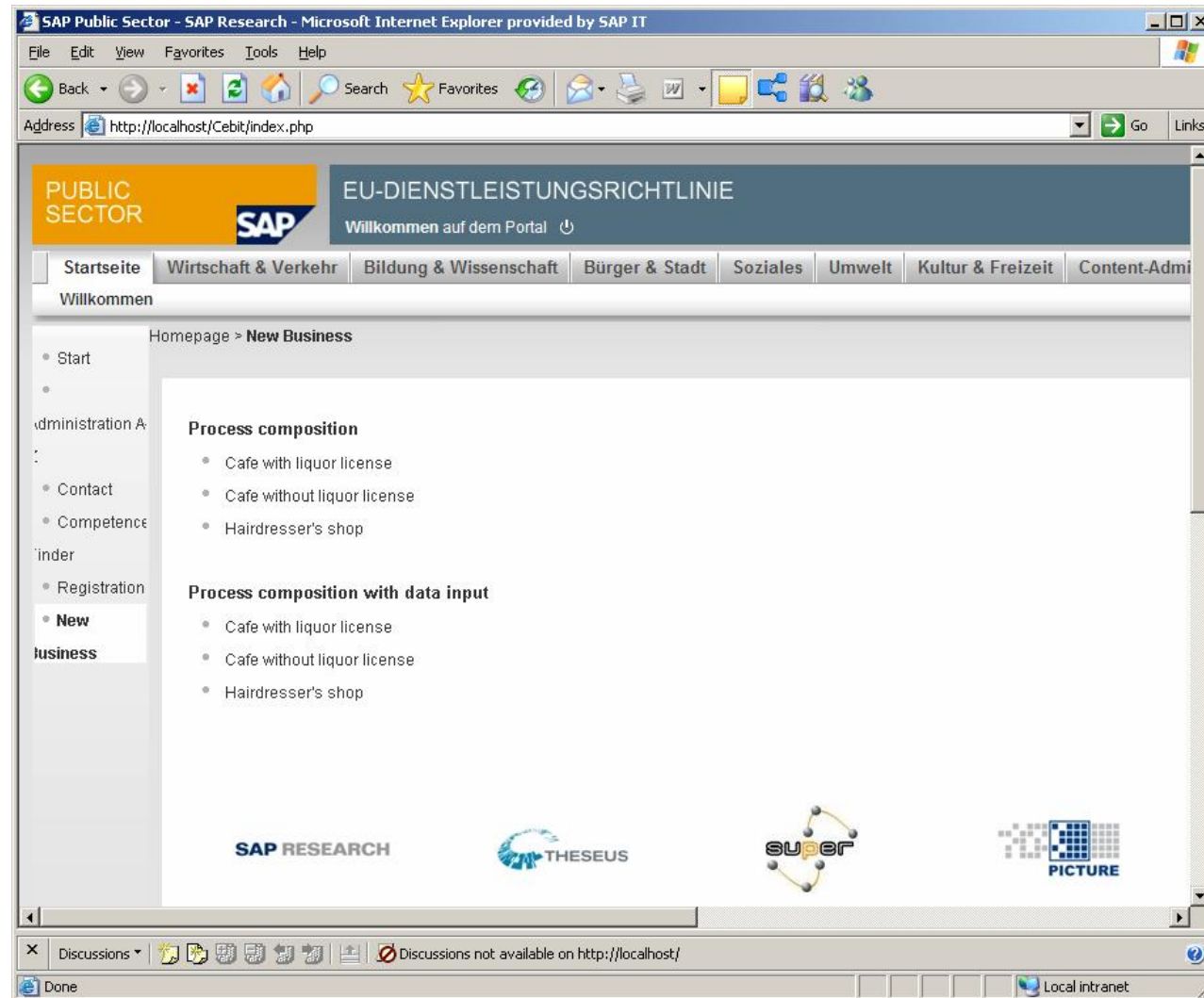
# Agenda



## Internet of Services

1. **The Rise of Services**
2. Internet Trading
3. Internet of Services

# Demo: EU services sirective – Towards an open plattform for constituent-centric services



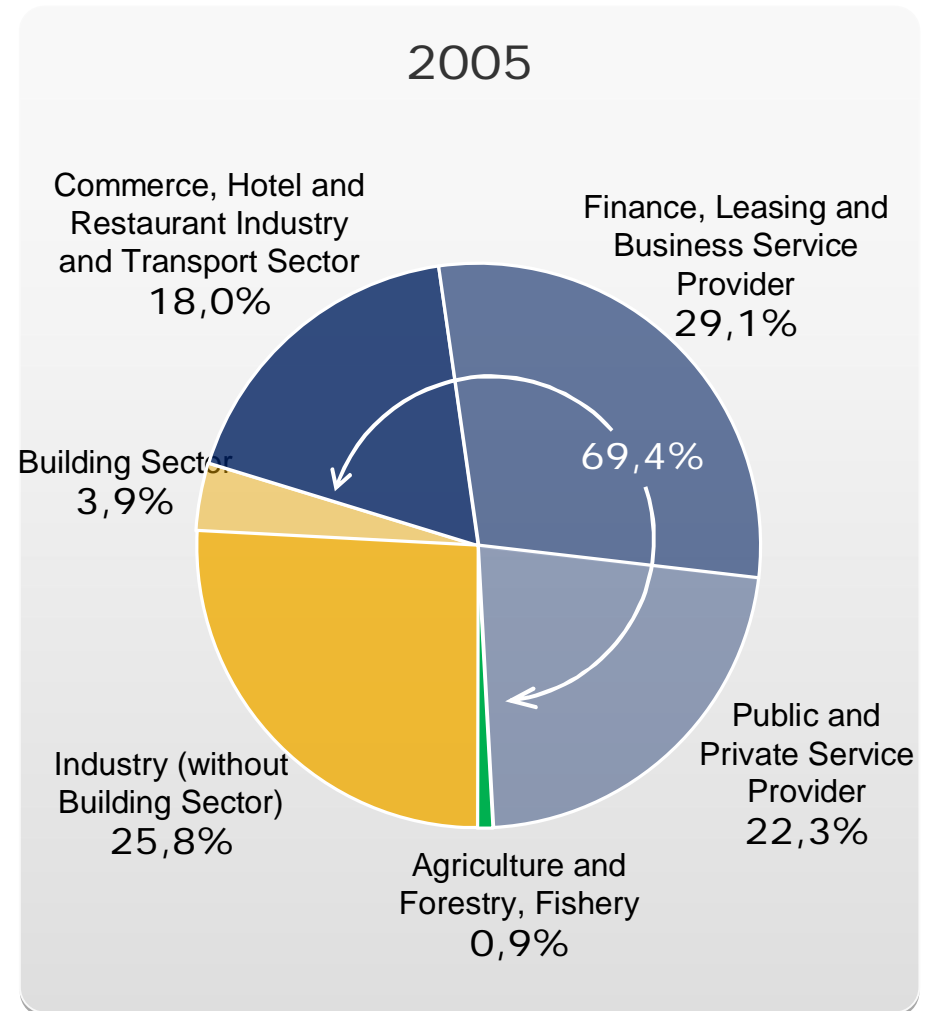
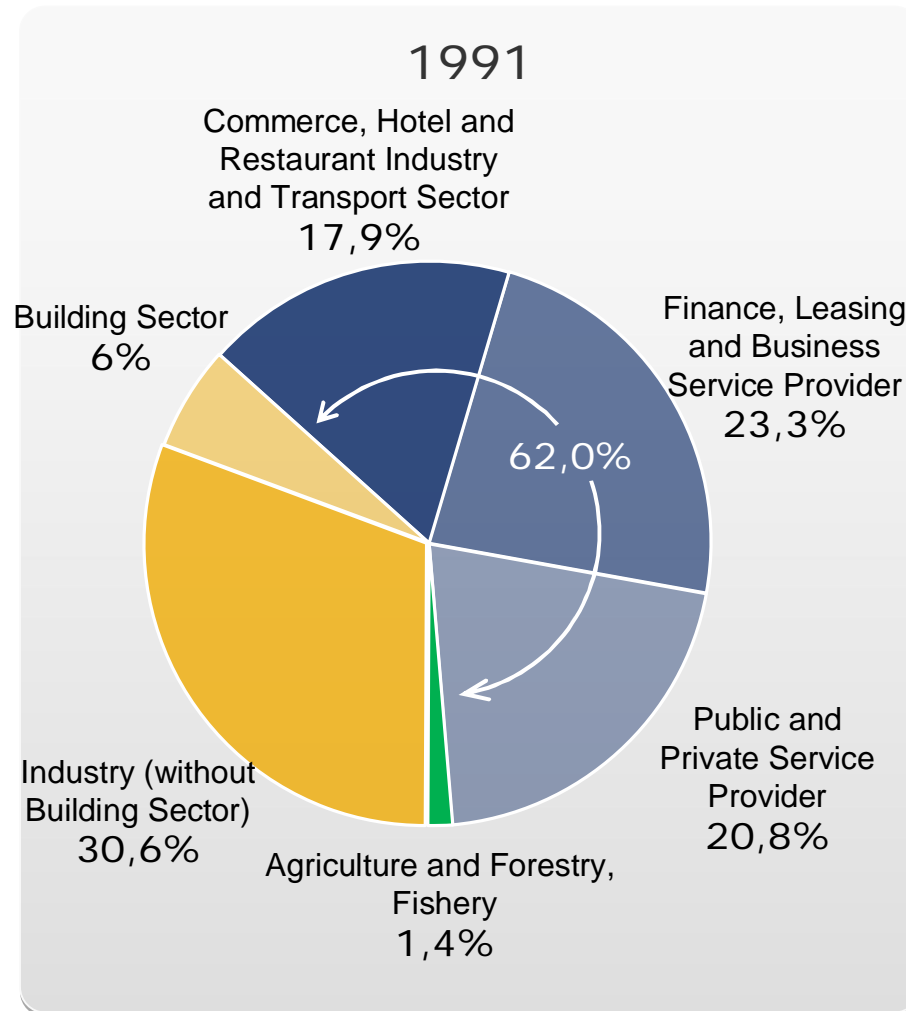
## What is a service, anyway?

- Easy to define what a service is **not**
  - excludes harvesting the land and manufacturing automobiles
- Economist: *“anything sold in trade that cannot be dropped on your foot”*

# Trend: "Tertiarisation" Growth through services



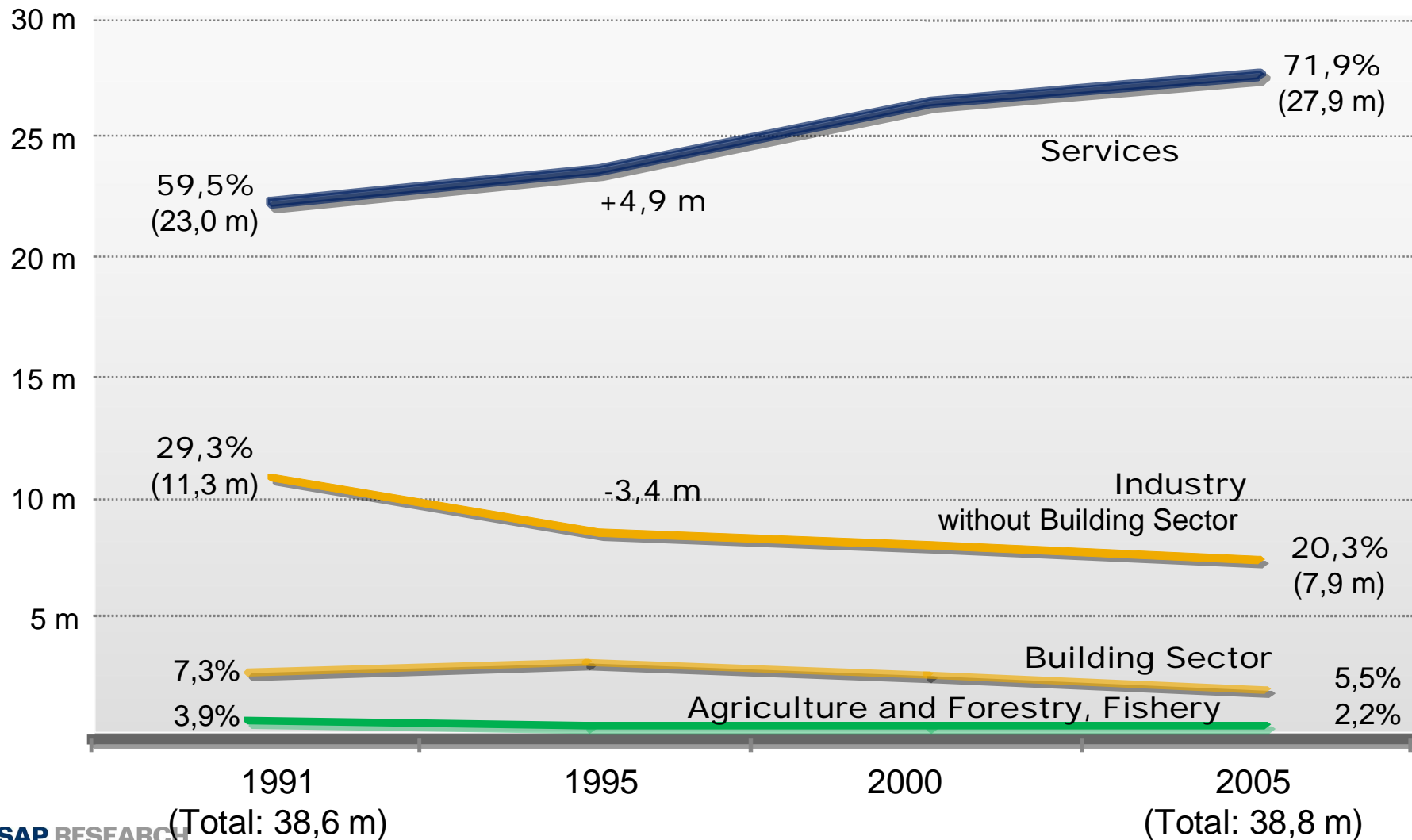
## Gross Value Added in Germany



# Trend: Tertiarisation Employment through services



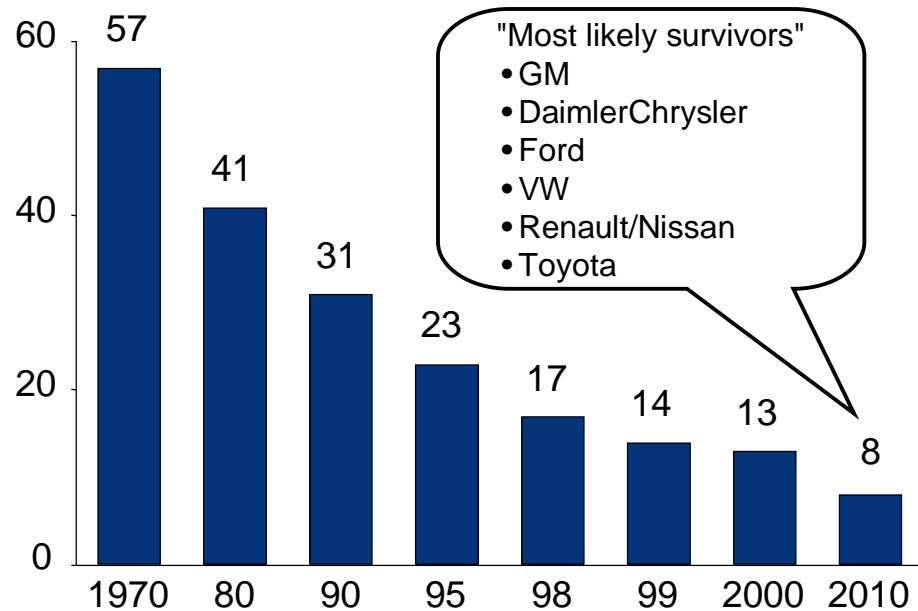
## Employees in Germany



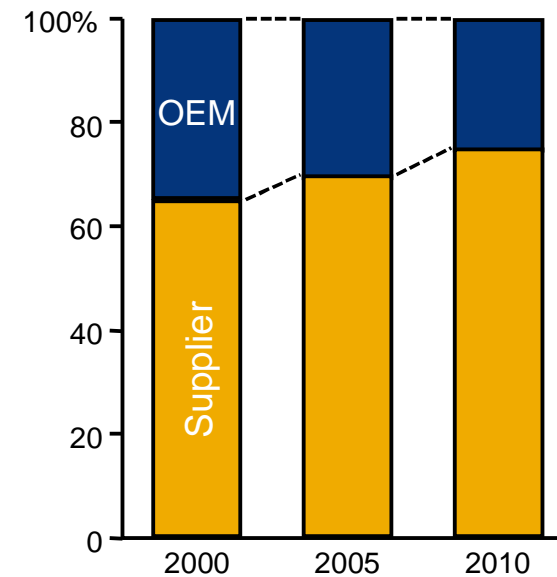
# Trend: Focusing on Core Competencies Consolidation & Reducing the Value Chain



Number of independent OEMs



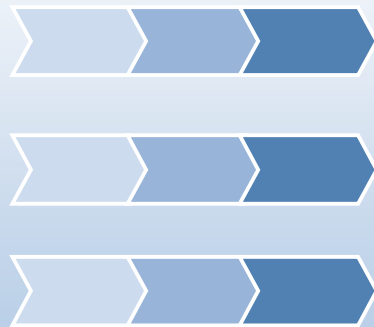
Percentage of value addition



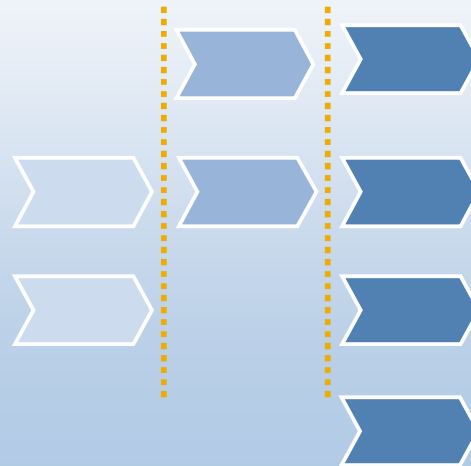
# Consequence: Agility Flexible Business Processes of the Future



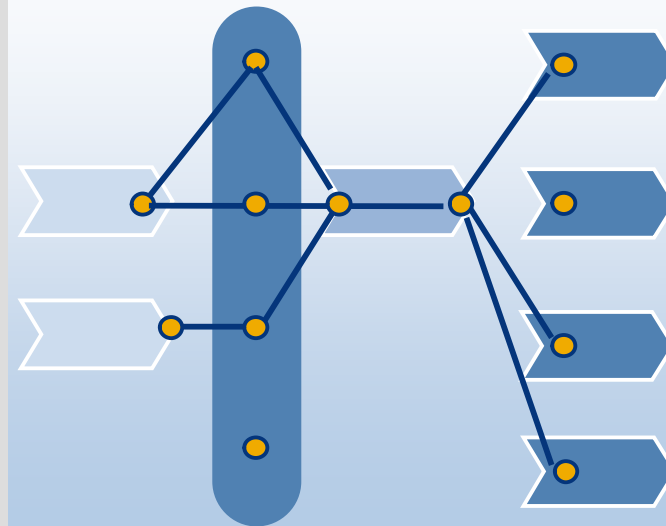
## HARD-WIRED VALUE CHAIN



## SPECIALIZATION & CONSOLIDATION



## BUSINESS WEB





# Convergence Physical products and services



From product ...



... to solutions

**HILTI**



Drilling machine



Drilling holes



**NOKIA**  
Connecting People



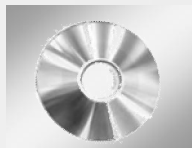
Mobile



Navigation



**SAP**



Software-  
CD



Software  
as a Service



# Agenda



1. The Rise of Services
- 2. Internet Trading**
3. Internet of Services

## Major company to sell goods over the Internet

- Started with books, diversified product lines largely (... and counting)
- **Long tail** business model
- Revenue in 2006: US\$10.7 billion

## Partner Program

- Every partner can set links to Amazon products on own webpage and is rewarded for created revenues by visitors of the links
- Every partner can create own stores to offer own and Amazon products
- Over 900.000 registered partners world-wide
- Self-enforcing process: Links are ranked highly in search engines which makes Amazon more attractive

## Services

- Marketplace, Web Services, S3, EC2, Mechanical Turk, Flexible Payment Service, Unbox, MP3 Downloads ... (and counting)



## Internet Store + Application + Hardware

### ■ iTunes Store

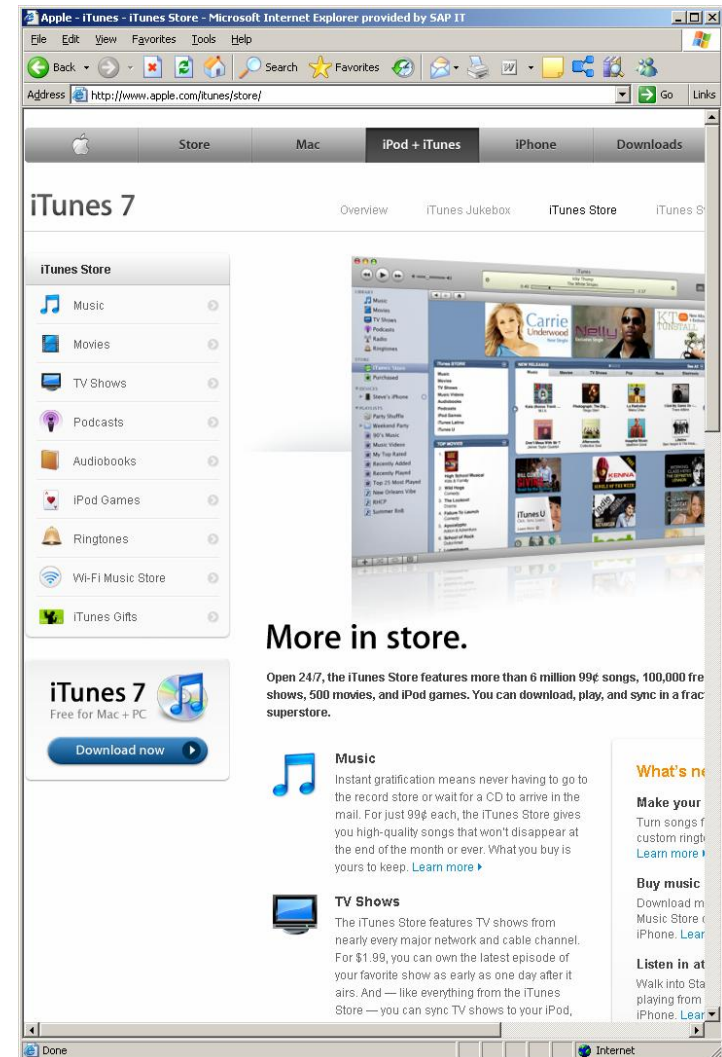
- Sold more than 3 billion songs in first 4 years (July 2007)
- Market share of more than 80% of worldwide online digital music sales
- **Single-price** business model
- Connects easily with iTunes application

### ■ iTunes application

- Buying, playing and organizing digital media
- Bundled with Macs and some HPs and Dells, available for major OSs
- Connects easily with iPod

### ■ iPod

- Digital music player
- Sold over 110 million times (September 2007)





## Software application delivery model

- Vendor develops, hosts and operates web-native applications
- Customers pay per use, not for owning
- Targets business users (in contrast: Web2.0 is for consumers)
- **Price per-user** business model

## Characteristics (IDC)

- Network-based access to and management of commercially available software
- Services offered from central location, but accessible via Web
- One-to-many model (single instance, multi-tenant architecture)

## Typical applications and vendors

- Email, CRM, HR, Accounting, Video Conferencing, ...
- Salesforce, SAP BusinessBy Design...

# Introducing... SAP Business ByDesign

The Most Complete, Adaptable On-Demand Business Solution



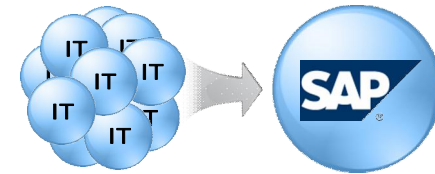
## SAP Business ByDesign



360 Degree  
Solution



Easy-to-Use  
and Adapt



Predictable,  
Affordable,  
Manageable IT

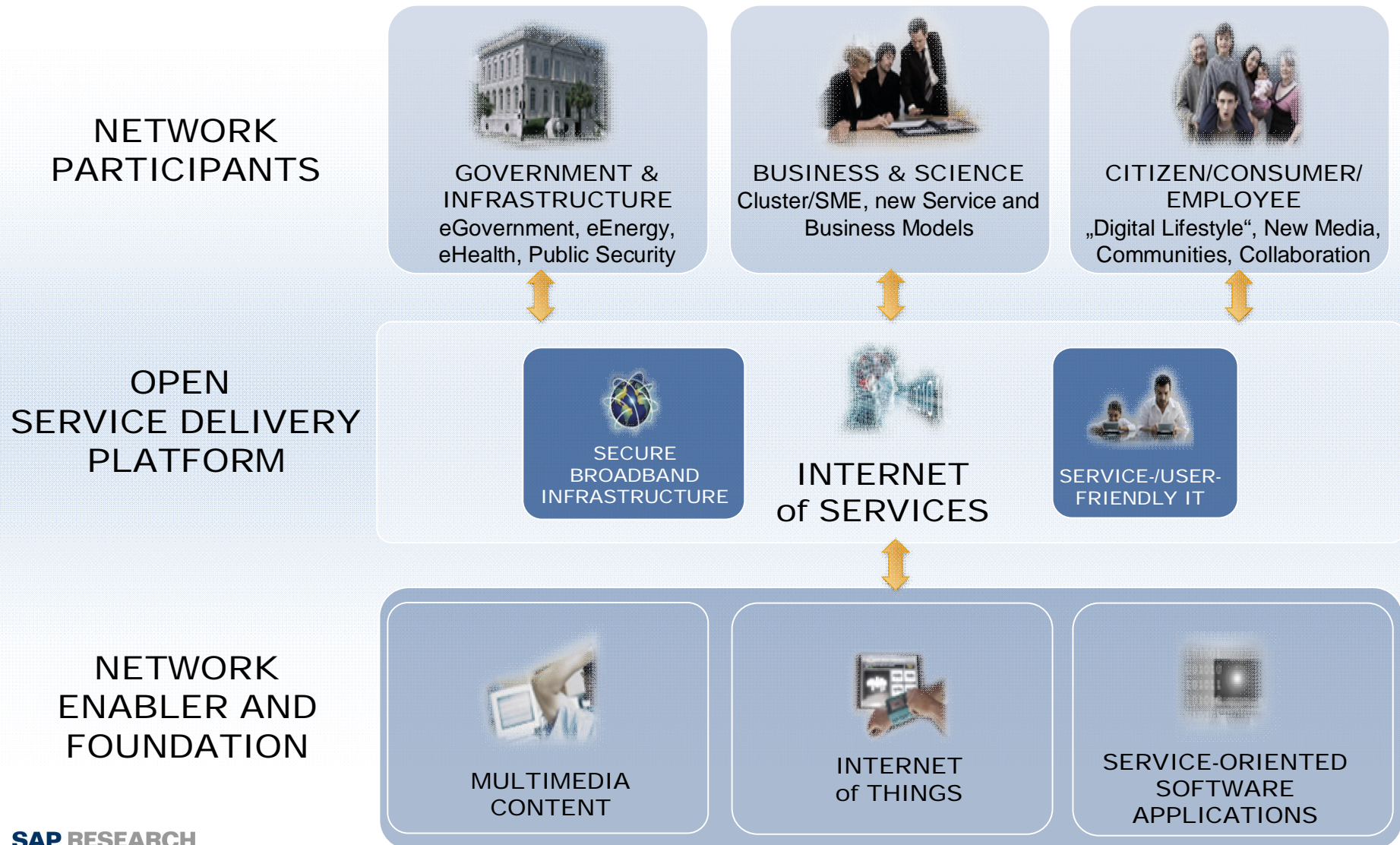
# Agenda



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# The Big Picture: Vision of a web-based Service Economy





# Internet of Services – the Gathering Clouds



## SOFTWARE AS A SERVICE

Rearden Commerce



Salesforce



Strikelron



applicationmarketplace.com.au



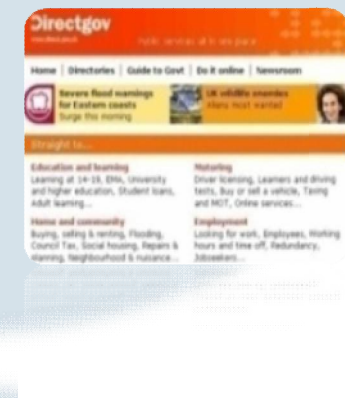
## INTERNET OF SERVICES

## PUBLIC SECTOR ONE-STOP SERVICE DELIVERY

USA.gov



directgov.uk



## LOGISTICS, MANUFACTURING

TradeExchange.com



Alibaba.com



## COMMUNICATIONS SDP

Microsoft CSF



HP (SDP 2.0)



nttdocomo.com



22.verizon.com

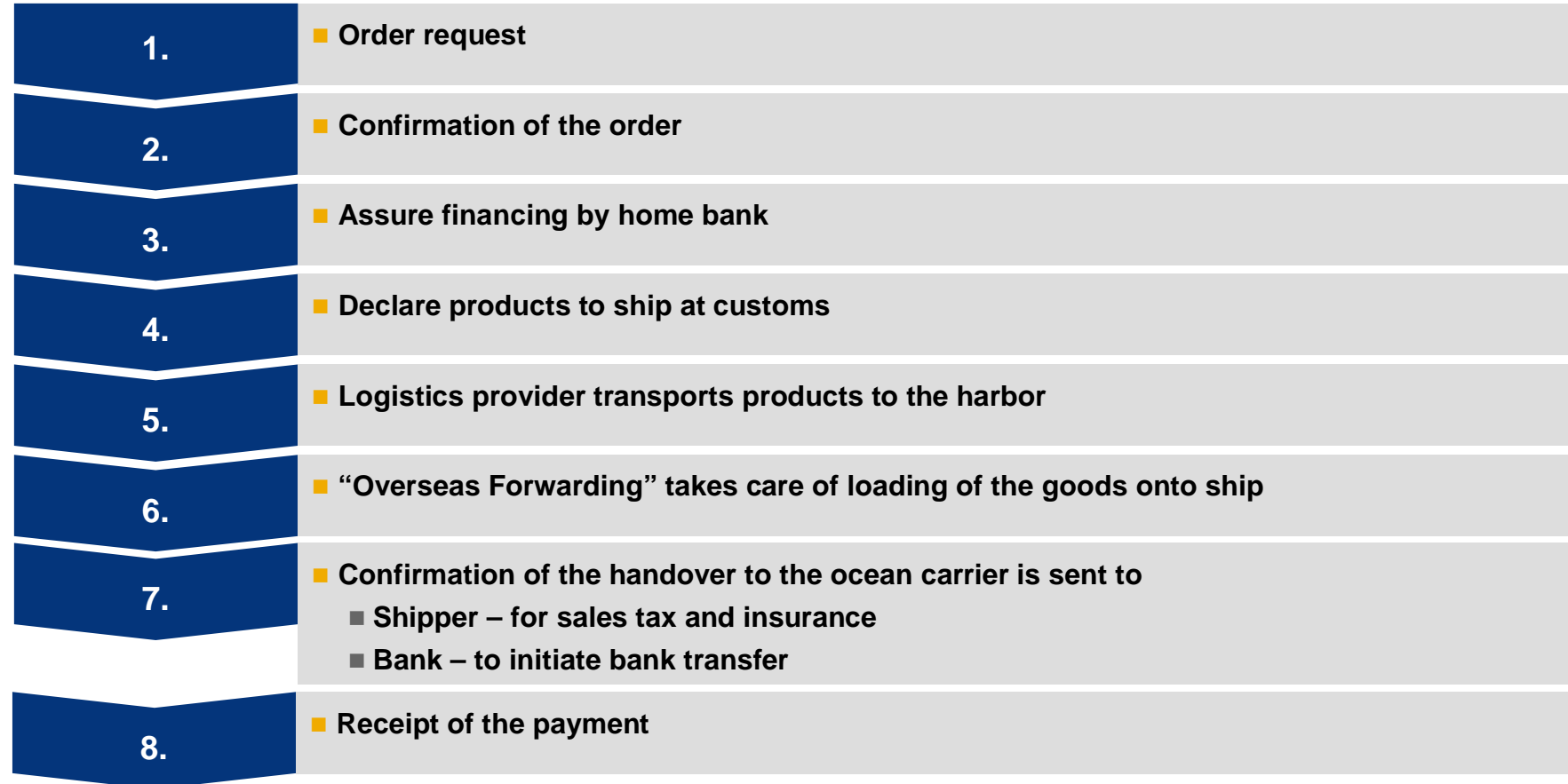


inetx



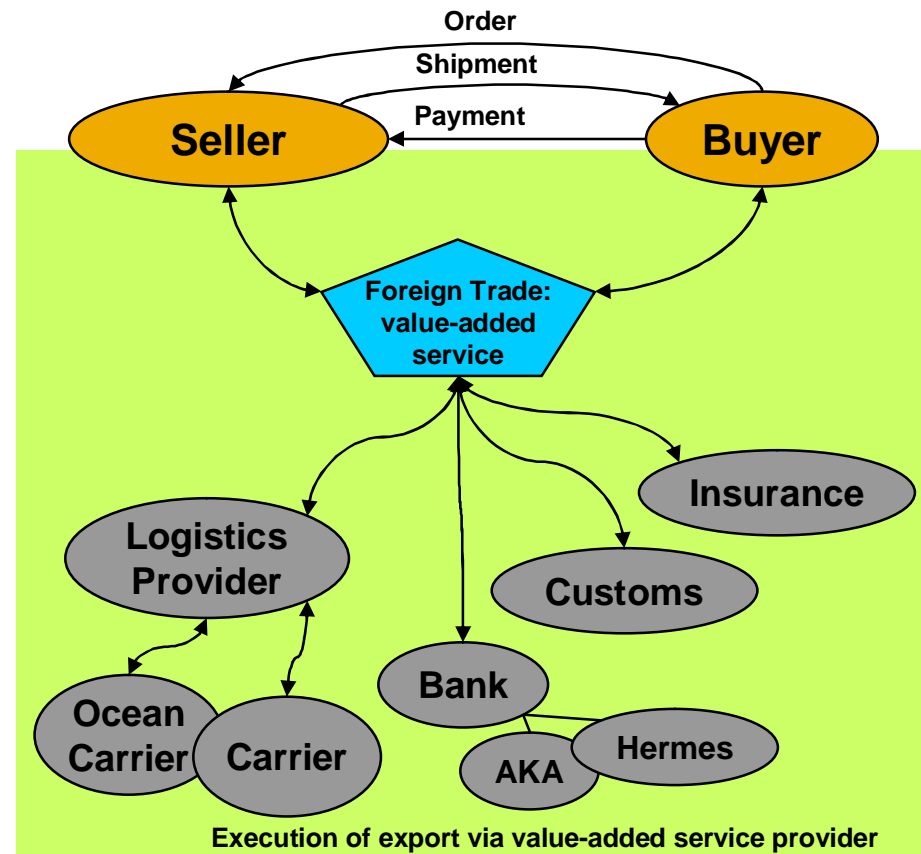
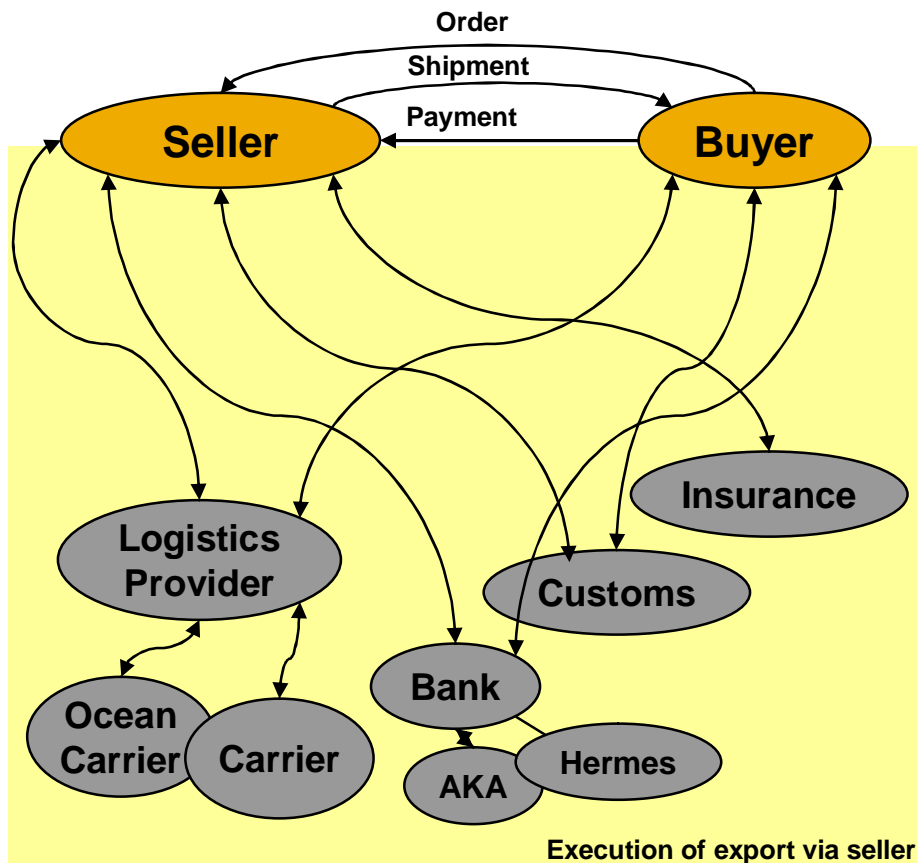
SAP RESEARCH

# Process for exporting goods in foreign trade - a simple process?



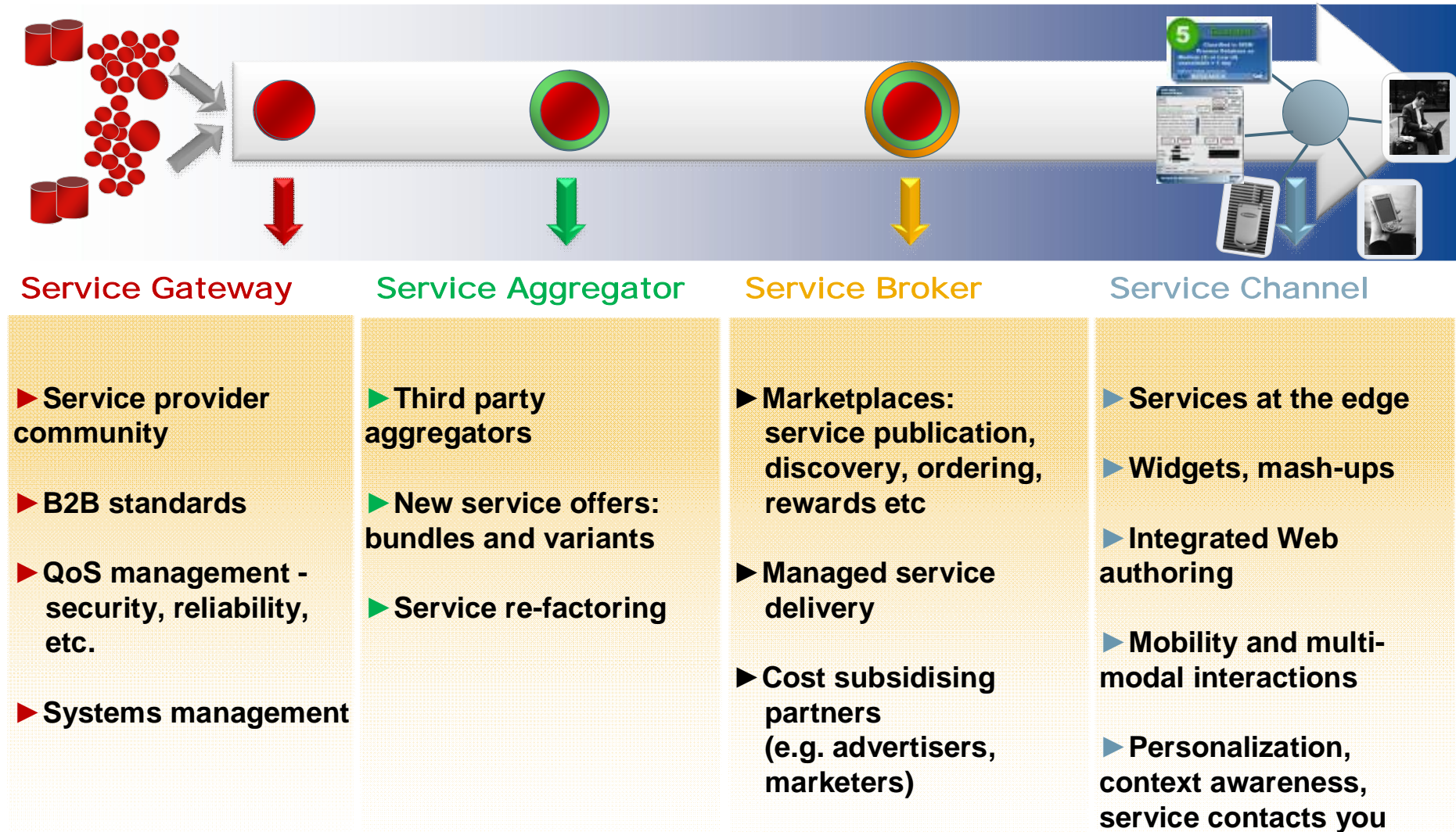
# The service aspects of exporting goods in foreign trade are non-trivial

- Foreign trade processing is a **complex service**
- For SMEs, foreign trade processing is **NOT a core competence**
- A reliable **value-added service provider** coordinates the process on behalf of the seller





# Diversified Partnerships for Service Supply: from the "Cloud" to the "Sky"



# Demo: Service consumption



Design Manager Cockpit: David Designer

File Edit Orders Projects PLM Extra Help

**Components**

- headrest
- backrest
- seat base
- safety belt buckle

**Product** Projects Documents Requirements Analytics


**Product Description**

New changes & Requirements weight:

The seats weight does not exceed 34 kg, this includes the seats structure

Requirements costs:

**Product Visualisation**



ProductID: DMR2007  
Volume: 0,750 M3  
Net Weight: 20,5 Kg  
Gross Weight: 24,3 Kg

Set BOM Status

**Product History**

Description	Date	Changed by
Solved Quality Issues	10.05.2007	Brosmann
Reduced weight	15.05.2007	Cruise
...	...	...

**Product Components**

Component	Supplier
headrest, HR01	PDK
backrest, BR2003	KarSub
seat shell, SH2006	autoliv
rotation knob, RNO19	JK
strap closer, C343	autoparts

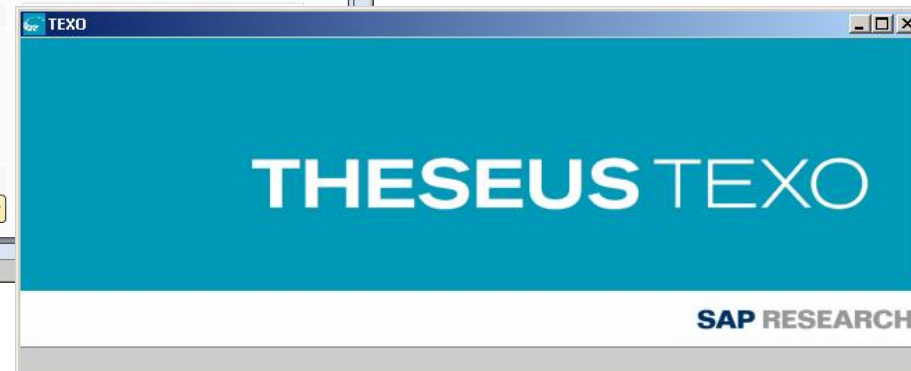
**Task Details**

☒ Eco-directive compliance

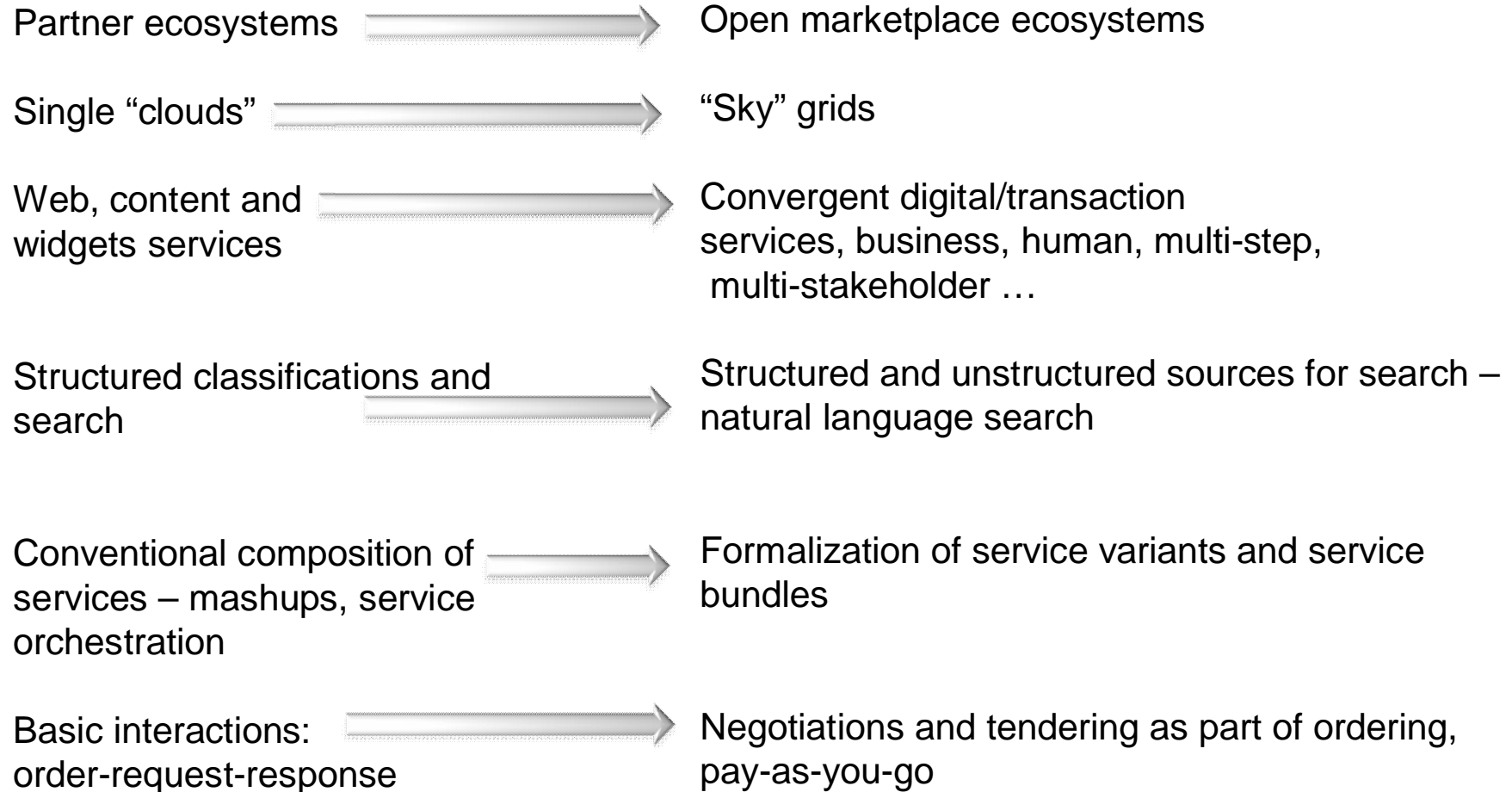
The eco-directive „Brazil-Eco-Balance 2007“ from December 1, 2007, sets strict eco balance requirements on all imported goods. All goods imported into Brazil need to be compliant with the target numbers of 85% eco value.

**ECO-Directive**

Resubmit Forward Assign to me Set Status



# New service provisioning trends



# Thank you!

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